Section 3

The Building Exterior

3.0 The Building Exterior - Overview:

(From the Secretary of the Interior's Standards)

Choosing an Appropriate Treatment for the Historic Building

Choosing the most appropriate treatment for a building requires careful decision-making about a building's historical significance, as well as taking into account a number of other considerations:

Relative importance in history: Is the building a nationally significant resource; a rare survivor or the work of a master architect or craftsman? Did an important event take place in it? National Historic Landmarks, designated for their "exceptional significance in American history," or many buildings individually listed in the National Register often warrant Preservation or Restoration. Buildings that contribute to the significance of a historic district, but are not individually listed in the National Register, more frequently undergo Rehabilitation for a compatible new use.

Physical condition: What is the existing condition - or degree of material integrity - of the building prior to work? Has the original form survived largely intact or has it been altered over time? Are the alterations an important part of the building's history?

Preservation may be appropriate if distinctive materials, features, and spaces are essentially intact and convey the building's historical significance. If the building requires more extensive repair and replacement, or if alterations or additions are necessary for a new use, then Rehabilitation is probably the most appropriate treatment. These key questions play major roles in determining what treatment is selected.

Proposed use. An essential, practical question to ask is: Will the building be used as it was historically or will it be given a new use? Many historic buildings can be adapted for new uses without seriously damaging their historic character; special-use properties such as grain silos, forts, ice houses, or windmills may be extremely difficult to adapt to new uses without major intervention and a resulting loss of historic character and even integrity.

Mandated code requirements. Regardless of the treatment, code requirements will need to be taken into consideration. But if hastily or poorly designed, a series of code-required actions may jeopardize a building's materials as well as its historic character. Thus, if a building needs to be seismically upgraded, modifications to the historic appearance should be minimal. Abatement of lead paint and asbestos within historic buildings requires particular care if important historic finishes are not to be adversely affected. Finally, alterations and new construction needed to meet accessibility requirements under the American with Disabilities Act of 1990 should be designed to minimize material loss and visual change to a historic building.

3.0 The Building Exterior - Policy Information:

Substitute Materials and Replacement Windows

The Fort Smith Historic District Commission views the Belle Grove Historic District as a whole and thus the sum of its individual parts. For this reason, all buildings within the District are deemed to be of architectural significance, unless excepted by the Commission. Therefore, the Commission has adopted the following policy regarding the application of aluminum, vinyl, concrete siding, or any other substitute materials, and the replacement of original windows to existing buildings within the District.

To the greatest extent possible, the Commission encourages the maintenance and preservation of original historic exterior materials in all cases. The Commission is aware that the application of artificial siding frequently compromises the aesthetic integrity of a building through the removal of original architectural details and the alteration of both original sheathing materials and overall proportional relationships that are essential to preserving the building's historic character and visual identification with a particular period of the past. Therefore, the Commission will adhere to the Secretary of the Interior's Guidelines for Rehabilitation for substitute materials and will consider substitute siding materials used only on a limited basis and only when they will match the appearance and general properties of the historic material and will not damage the historic resource.

Windows on many historic buildings are an important aspect of the architectural character of those buildings. Their design, craftsmanship, or other qualities may make them worthy of preservation. This is self-evident for ornamental windows, but it can be equally true for non-residential buildings where the windows may be the most dominant visual element of an otherwise plain building. Unfortunately, windows are among the most vulnerable features of historic buildings undergoing rehabilitation. Because of the architectural importance of historic windows, the Commission discourages the removal of historic windows and encourages the maintenance and preservation of historic windows. Therefore, the Commission will adhere to the *Secretary of the Interior's Guidelines on Rehabilitation* for historic windows and will consider replacement windows only when the original windows are beyond repair and the replacement window retains as much of the character of the historic window as possible.

In each case, where application of substitute materials or replacement windows to an existing building is proposed, the Commission will carefully evaluate the effect of the new material or replacement window on the building's style, significance, structural integrity, location of the new material or window, and the effect on the District as a whole before a Certificate of Appropriateness is granted or denied.

3.1 Masonry:

(From the Secretary of the Interior's Standards)

Stone is one of the more lasting masonry building materials and has been used throughout the history of American building construction. The kinds of stone most commonly encountered on historic buildings in the U.S. include various types of sandstone, limestone, marble, granite, slate, and fieldstone. **Brick** varied considerably in size and quality. Before 1870, brick clays were pressed into molds and were often unevenly fired. The quality of brick depended on the type of clay available and the brick-making techniques; by the 1870s - with the perfection of an extrusion process - bricks became more uniform and durable. **Terra cotta** is also a kiln-dried clay product popular from the late 19th century until the 1930s. The development of the steel-frame office buildings in the early 20th century contributed to the widespread use of architectural terra cotta. **Adobe,** which consists of sun-dried earthen bricks, was one of the earliest building materials used in the U.S., primarily in the Southwest where it is still popular.

Mortar is used to bond together masonry units. Historic mortar was generally quite soft, consisting primarily of lime and sand with other additives. By the latter part of the 19th century, portland cement was usually added resulting in a more rigid and non-absorbing mortar. Like historic mortar, early **stucco** coatings were also heavily lime-based, increasing in hardness with the addition of portland cement in the late 19th century. **Concrete** has a long history, being variously made of tabby, volcanic ash and, later, of natural hydraulic cements, before the introduction of portland cement in the 1870s. Since then, concrete has also been used in its precast form.

Additional Overview:

Chimneys: Original chimneys that are features of the structure should not be removed or changed. Non-functional interior chimneys should be maintained and not removed above the roofline, which often occurs. If reconstruction of a chimney is necessary because it is structurally unstable, it should be rebuilt in the original configuration and materials.

Masonry Cleaning:

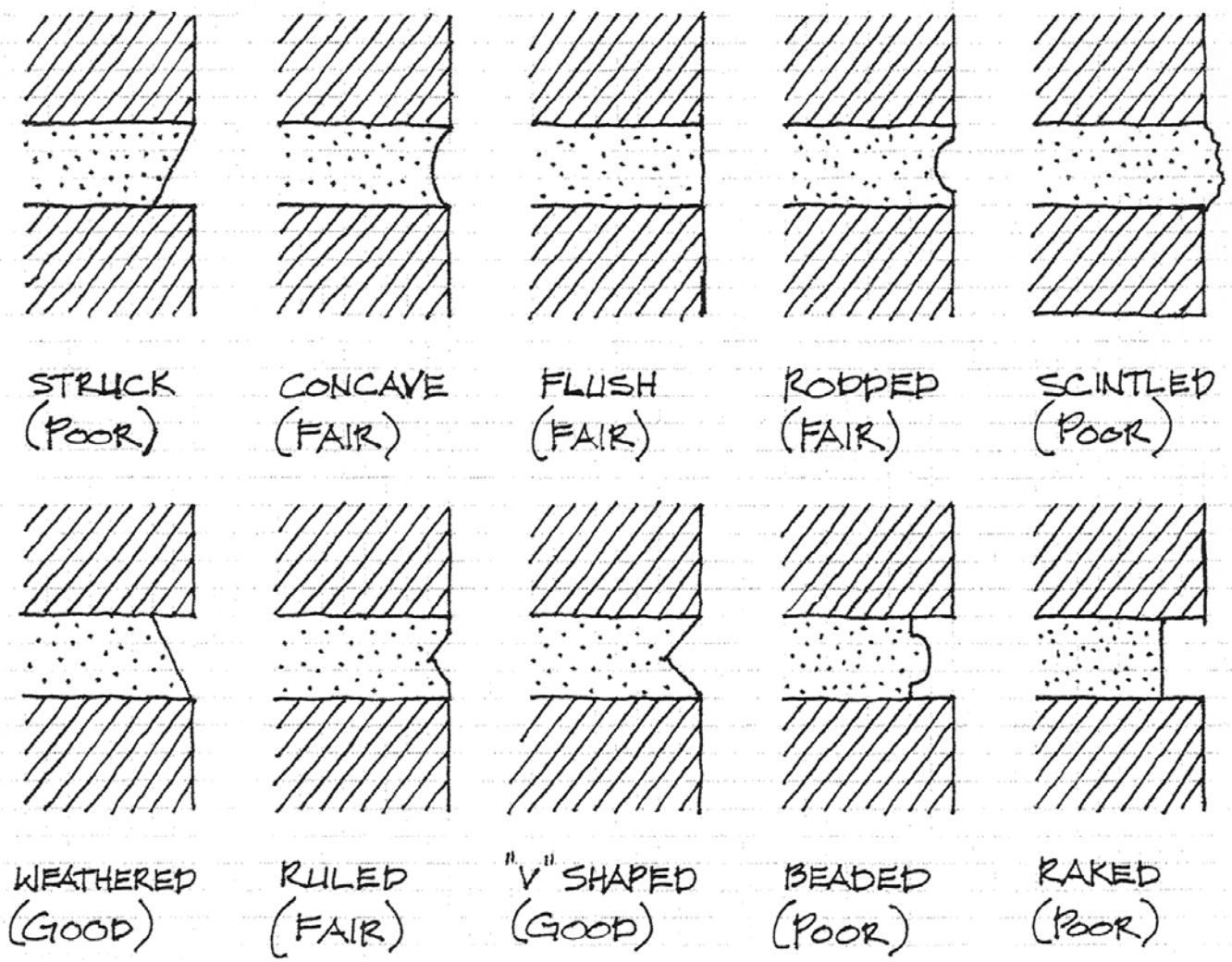
Masonry and mortar on historic buildings are different from masonry used today on new buildings and must be treated differently. Cleaning masonry is an important first step prior to attempting repairs on repointing mortar. Improper methods of cleaning can cause severe irreversible damage, which can affect the structural integrity of a wall or column.

The most "notorious" distinctive cleaning method is "sand blasting," which was popular in the 1960's. "Wet blasting," "mud slushing," and "mud slinging" can do much damage to the face of the brick, thus removing the hard covering and allowing moisture to penetrate the soft center of the brick. If that occurs, freezing and thawing of the brick will cause the brick to spall off. Water blasting can blast a brick to pieces and leave a hole in the wall, which in turn, can allow damage to the interior of the wall.

Painting Masonry can cause problems in the future. It conceals cracks, deteriorated mortar joints, and does not allow the masonry to "breathe" out any moisture that it may have absorbed. Once painted, masonry must continually be cleaned and repainted, sometimes at great expense.

Repointing Masonry: After cleaning, repointing, repairs or replacing loose or missing mortar and masonry may be required. Before repointing begins, an experienced historic mason should have a laboratory analyze the content, texture, and color of the existing mortar. Materials and techniques have changed much over time and newer products are not compatible with the historic materials. Old mortar joints should be raked out with hand tools no less than 2 1/2 times the joint width. The joints must be thoroughly cleaned prior to pointing in new mortar. A good mortar mix will match the old one in sand type, lime content, texture, and color.

Masonry Sealing: Applying a masonry sealer is not a cure-all for masonry deficiencies. An application with a sealer can cause the masonry to not allow moisture out of the masonry. If it were applied during humid or damp weather, the existing moisture would be trapped. Sealers may also change the appearance of the masonry.



MASONRY JOINT PROFILES

3.1 Masonry: Guidelines

(From the Secretary of the Interior's Standards)

Brick, stone, terra cotta, concrete, adobe, stucco and mortar

Recommended

.1 Identifying, retaining, and preserving masonry features that are important in defining the overall historic character of the building such as walls, brackets, railing, cornices, window architraves, door pediments, steps, and columns; and details such as tooling and bonding patterns, coatings, and color.

.2 Protecting and maintaining masonry by providing proper drainage so that water does not stand on flat, horizontal surfaces or accumulate in curved decorative features.

.3 Cleaning masonry only when necessary to halt deterioration or remove heavy soiling.

.4 Carrying out masonry surface cleaning tests after it has been determined that such cleaning is appropriate. Tests should be observed over a sufficient period of time so that both the immediate and the long-range effects are known to enable selection of the gentlest method possible.

.5 Cleaning masonry surfaces with the gentlest method possible, such as low-pressure water and detergents, using natural bristle brushes.

.6 Inspecting painted masonry surfaces to determine whether repainting is necessary.

.7 Removing damaged or deteriorated paint only to the next sound layer using the gentlest method possible (e.g., hand scraping) prior to repainting.

.8 Applying compatible paint coating systems following proper surface preparation.

.9 Repainting with colors that are historically appropriate to the building and district.

.10 Evaluating the overall condition of the masonry to determine whether more than protection and maintenance are required, that is, if repairs to masonry features will be necessary.

.11 Repairing masonry walls and other masonry features by re-pointing the mortar joints where there is evidence of deterioration such as disintegrating mortar, cracks in mortar joints, loose bricks, damp walls, or damaged plasterwork.

.12 Removing deteriorated mortar by carefully hand-raking the joints to avoid damaging the masonry.

.13 Duplicating old mortar in strength, composition, color, and texture.

.14 Duplicating old mortar joints in width and in joint profile.

.15 Repairing stucco by removing the damaged material and patching with new stucco that duplicates the old in strength, composition, color, and texture.

.16 Using mud plaster as a surface coating over unfired, unstabilized adobe because the mud plaster will bond to the adobe.

.17 Cutting damaged concrete back to remove the source of deterioration (often corrosion on metal reinforcement bars). The new patch must be applied carefully so it will bond satisfactorily with, and match, the historic concrete.

.18 Repairing masonry features by patching, piecing-in, or consolidating the masonry using recognized preservation methods. Repair may also include the limited replacement in kind - or with compatible substitute material - of those extensively deteriorated or missing parts of masonry features when there are surviving prototypes such as terra-cotta brackets or stone balusters.

.19 Applying new or non-historic surface treatments such as water-repellent coatings to masonry only after re-pointing and only if masonry repairs have failed to arrest water penetration problems.

.20 Replacing in kind an entire masonry feature that is too deteriorated to repair if the overall form and detailing are still evident - using the physical evidence as a model to reproduce the feature. Examples can include large sections of a wall, a cornice, balustrade, column, or stairway. If using the same kind of material is not technically or economically feasible, then a compatible substitute material may be considered.

Not Recommended

.21 Removing or radically changing masonry features which are important in defining the overall historic character of the building so that, as a result, the character is diminished.

.22 Replacing or rebuilding a major portion of exterior masonry walls that could be repaired so that, as a result, the building is no longer historic and is essentially new construction.

.23 Applying paint or other coatings such as stucco to masonry that has been historically unpainted or uncoated to create a new appearance.

.24 Removing paint from historically painted masonry.

.25 Radically changing the type of paint or coating or its color.

.26 Failing to evaluate and treat the various causes of mortar joint deterioration such as leaking roofs or gutters, differential settlement of the building, capillary action, or extreme weather exposure.

.27 Cleaning masonry surfaces when they are not heavily soiled to create a new appearance, thus needlessly introducing chemicals or moisture into historic materials.

.28 Cleaning masonry surfaces without testing or without sufficient time for the testing results to be of value.

.29 Sandblasting brick or stone surfaces using dry or wet grit or other abrasives. These methods of cleaning permanently erode the surface of the material and accelerate deterioration.

.30 Using a cleaning method that involves water or liquid chemical solutions when there is any possibility of freezing temperatures.

.31 Cleaning with chemical products that will damage masonry, such as using acid on limestone or marble, or leaving chemicals on masonry surfaces.

.32 Applying high-pressure water cleaning methods that will damage historic masonry and the mortar joints.

.33 Removing paint that is firmly adhering to, and thus protecting, masonry surfaces.

.34 Using methods of removing paint which are destructive to masonry, such as sandblasting, application of caustic solutions, or high-pressure water blasting.

.35 Failing to follow manufacturers' product and application instructions when repainting masonry.

.36 Using new paint colors that are inappropriate to the historic building and district.

.37 Failing to undertake adequate measures to assure the protection of masonry features.

.38 Removing non-deteriorated mortar from sound joints, then repointing the entire building to achieve a uniform appearance.

.39 Using electric saws and hammers rather than hand tools to remove deteriorated mortar from joints prior to re-pointing.

.40 Repointing with mortar of high portland cement content (unless it is the content of the historic mortar). This can often create a bond that is stronger than the historic material and can cause damage as a result of the differing coefficients of expansion and the differing porosity of the material and the mortar.

.41 Repointing with a synthetic caulking compound.

.42 Using a "scrub" coating technique to repoint instead of traditional repointing methods.

.43 Changing the width or joint profile when repointing.

.44 Removing sound stucco; or repairing with new stucco that is stronger than the historic material or does not convey the same visual appearance.

.45 Applying cement stucco to unfired, unstabilized adobe. Because the cement stucco will not bond properly, moisture can become entrapped between materials, resulting in accelerated deterioration of the adobe.

.46 Patching concrete without removing the source of deterioration.

.47 Replacing an entire masonry feature such as a cornice or balustrade when repair of the masonry and limited replacement of deteriorated or missing parts are appropriate.

.48 Using a substitute material for the replacement part that does not convey the visual appearance of the surviving parts of the masonry feature or that is physically or chemically incompatible.

.49 Applying waterproof, water repellent, or non-historic coatings such as stucco to masonry as a substitute for repointing and masonry repairs. Coatings are frequently unnecessary, expensive, and may change the appearance of historic masonry, as well as accelerate its deterioration.

.50 Removing a masonry feature that is unrepairable and not replacing it, or replacing it with a new feature that does not convey to the same visual appearance.

3.2 Wood & Siding:

A. (From the Secretary of the Interior's Standards)

Wood has played a central role in American building during every period and in every style. Whether as structural members, exterior cladding, roofing, interior finishes, or decorative features, wood is frequently an essential component of historic buildings.

Because it can be easily shaped by; sawing, sanding, planing, carving, and gouging, to create architectural features such as clapboard, cornices, brackets, entablatures, shutters, columns and balustrades. These wooden features, both functional and decorative, are often important in defining the historic character of the building.

B. Special Provisions

See Section 3.0 for policy statement concerning artificial siding materials.

3.2 Wood & Siding: Guidelines

(Clapboard, weather board, shingles, and other wooden siding and decorative elements)

Recommended

.1 Identifying, retaining, and preserving wood features that are important in defining the overall historic character of the building such as cornices, siding brackets, window architraves, and doorway pediments; and their paints, finishes, and colors.

.2 Protecting and maintaining wood features by providing proper drainage so that water is not allowed to stand on flat, horizontal surfaces or accumulate in decorative features.

.3 Applying chemical preservatives to wood features such as beam ends or outriggers that are exposed to decay hazards and are traditionally unpainted.

.4 Retaining coatings such as paint that help protect the wood from moisture and ultraviolet light. Paint removal should be considered only where there is paint surface deterioration and as part of an overall maintenance program which involves repainting or applying other appropriate protective coatings.

.5 Inspecting painted wood surfaces to determine whether repainting is necessary or if cleaning is all that is required.

.6 Removing damaged or deteriorated paint to the next sound layer using the gentlest method possible (hand scraping and hand sanding), then repainting.

.7 Using with care electric hot-air guns on decorative wood features and electric heat plates on flat wood surfaces when paint is so deteriorated that total removal is necessary prior to repainting.

.8 Using chemical strippers primarily to supplement other methods such as hand scraping, hand sanding and the above recommended thermal devices. Detachable wooden elements such as shutters, doors, and columns may, with the proper safeguards, be chemically dip-stripped.

.9 Applying compatible paint coating systems following proper surface preparation.

.10 Repainting with colors that are appropriate to the historic building and district.

.11 Evaluating the overall condition of the wood to determine whether more than protection and maintenance are required, that is, if repairs to wood features will be necessary.

.12 Repairing wood features by patching, piecing-in, consolidating, or otherwise reinforcing the wood using recognized preservation methods. Repair may also include the limited replacement in kind - or with compatible substitute material - of those extensively deteriorated or missing parts of features where there are surviving prototypes such as brackets, molding, or sections of siding.

.13 Replacing in kind an entire wood feature that is too deteriorated to repair - if the overall form and detailing are still evident - using the physical evidence as a model to reproduce the feature. Examples of wood features include a cornice, entablature or balustrade. If using the same kind of material is not technically or economically feasible, then a compatible substitute material may be considered.

Not Recommended

.14 Removing or radically changing wood features which are important in defining the overall historic character of the building so that, as a result, the character is diminished.

.15 Removing a major portion of the historic wood from a façade instead of repairing or replacing only the deteriorated wood, then reconstructing the facade with new material in order to achieve a uniform or "improved" appearance.

.16 Radically changing the type of finish or its color or accent scheme so that the historic character of the exterior is diminished.

.17 Stripping historically painted surfaces to bare wood, then applying clear finishes or stains in order to create a "natural look."

.18 Stripping paint or varnish to bare wood rather than repairing or reapplying a special finish, i.e., a grained finish to an exterior wood feature such as a front door.

.19 Failing to identify, evaluate, and treat the causes of wood deterioration, including faulty flashing, leaking gutters, cracks and holes in siding, deteriorated caulking in joints and seams, plant material growing too close to wood surfaces, or insect or fungus infestation.

.20 Using chemical preservatives such as creosote, which, unless they were used historically, can change the appearance of wood features.

.21 Stripping paint or other coatings to reveal bare wood, thus exposing historically coated surfaces to the effects of accelerated weathering.

.22 Removing paint that is firmly adhering to, and thus, protecting wood surfaces.

.23 Using destructive paint removal methods such as propane or butane torches, sandblasting or water-blasting. These methods can irreversibly damage historic woodwork.

.24 Using thermal devices improperly so that the historic woodwork is scorched.

.25 Failing to neutralize the wood thoroughly after using chemicals so that new paint does not adhere.

.26 Allowing detachable wood features to soak too long in a caustic solution so that the wood grain is raised and the surface roughened.

.27 Failing to follow manufacturer's product and application instructions when repainting exterior woodwork.

.28 Using new colors that are inappropriate to the historic building or district.

.29 Failing to undertake adequate measures to assure the protection of wood features.

.30 Replacing an entire wood feature such as a cornice or wall when repair of wood and limited replacement of deteriorated or missing parts are appropriate.

.31 Using substitute material for the replacement part that does not convey the visual appearance of the surviving parts of the wood feature or that is physically or chemically incompatible.

.32 Removing an entire wood feature that is unrepairable and not replacing it; or replacing it with a new feature that does not convey the same visual appearance.

3.3 Architectural Metals

(From the Secretary of Interior's Standards)

Architectural metal features - such as cast iron facades, porches, and steps; sheet metal cornices, siding, roofs, roof cresting and storefronts; and cast or rolled metal doors, window sash, entablatures, and hardware - are often highly decorative and may be important in defining the overall character of historic American buildings.

Metals commonly used in historic buildings include lead, tin, zinc, copper, bronze, brass, iron, steel, and to a lesser extent, nickel alloys, stainless steel and aluminum.

Historic metal building components were often created by highly skilled, local artisans, and by the late 19th century, many of these components were prefabricated and readily available from catalogs in standardized sizes and designs.

3.3 Architectural Metals: Guidelines

(Cast iron, steel, pressed tin, copper, aluminum and zinc)

Recommended

.1 Identifying retaining and preserving architectural metal features such as columns, capitals, window hoods, or stairways that are important in defining the overall historic character of the building; and their finishes and colors. Identification is also critical to differentiate between metals prior to work. Each metal has unique properties and thus requires different treatments.

.2 Protecting and maintaining architectural metals from corrosion by providing proper drainage so that water does not stand on flat, horizontal surfaces or accumulate in curved, decorative features.

.3 Cleaning architectural metals, when appropriate, to remove corrosion prior to repainting or applying other appropriate protective coatings.

.4 Identifying the particular type of metal prior to any cleaning procedure and then testing to assure that the gentlest cleaning method possible is selected or determining that cleaning is inappropriate for the particular metal.

.5 Cleaning soft metals such as lead, tin, copper, terne plate, and zinc with appropriate chemical methods because blasting methods can easily abrade their finishes.

.6 Using the gentlest cleaning methods for cast iron, wrought iron, and steel - hard metals - in order to remove paint buildup and corrosion. If hand scraping and wire brushing have proven ineffective, low pressure grit blasting may be used as long as it does not abrade or damage the surface.

.7 Applying appropriate paint or other coating systems after cleaning in order to decrease the corrosion rate of metals or alloys.

.8 Repainting with colors that are appropriate to the historic building or district.

.9 Applying an appropriate protective coating such as lacquer to an architectural metal feature such as a bronze door which is subject to heavy pedestrian use.

.10 Evaluating the overall condition of the architectural metals to determine whether more than protection and maintenance are required; that is, if repairs to features will be necessary.

.11 Repairing architectural metal features by patching, splicing, or otherwise reinforcing the metal following recognized preservation methods. Repairs may also include the limited replacement in kind - or with a compatible substitute material - of those extensively deteriorated or missing parts of features when there are surviving prototypes such as porch balusters, column capitals or bases, or porch cresting.

.12 Replacing in kind an entire architectural metal feature that is too deteriorated to repair - if the overall form and detailing are still evident - using the physical evidence as a model to reproduce the feature. Examples could include cast iron porch steps or steel sash windows. If using the same kind of material is not technically or economically feasible, then a compatible substitute material may be considered.

Not Recommended

.13 Removing or radically changing architectural metal features , which are important in defining the overall historic character of the building so that, as a result, the character is diminished.

.14 Removing a major portion of the historic architectural metal from a facade instead of repairing or replacing only the deteriorated metal, then reconstructing the façade with new material in order to create a uniform, or "improved" appearance.

.15 Radically changing the type of finish or its historic color or accent scheme.

.16 Failing to identify, evaluate, and treat the causes of corrosion, such as moisture from leaking roofs or gutters.

.17 Placing incompatible metals together without providing a reliable separation material. Such incompatibility can result in galvanic corrosion of the less noble metal, e.g., copper will corrode cast iron, steel, tin, and aluminum.

.18 Exposing metals which were intended to be protected from the environment.

.19 Applying paint or other coatings to metals such as copper, bronze, or stainless steel that were meant to be exposed.

.20 Using cleaning methods which alter or damage the historic color, texture, and finish of the metal; or cleaning when it is inappropriate for the metal.

.21 Removing the patina of historic metal. The patina may be a protective coating on some metals, such as bronze or copper, as well as a significant historic finish.

.22 Cleaning soft metals such as lead, tin, copper, terne plate, and zinc with grit blasting which will abrade the surface of the metal.

.23 Failing to employ gentler methods prior to abrasively cleaning cast iron, wrought iron or steel; or using high pressure grit blasting.

.24 Failing to re-apply protective coating systems to metals or alloys that require them after cleaning so that accelerated corrosion occurs.

.25 Using new colors that are inappropriate to the historic building or district.

.26 Failing to assess pedestrian use or new access patterns so that architectural metal features are subject to damage by use or inappropriate maintenance such as salting adjacent sidewalks.

.27 Failing to undertake adequate measures to assure the protection of architectural metal features.

.28 Replacing an entire architectural metal feature such as a column or a balustrade when repair of the metal and limited replacement of deteriorated or missing parts are appropriate.

.29 Using a substitute material for the replacement part that does not convey the visual appearance of the surviving parts of the architectural metal feature or that is physically or chemically incompatible.

NOTES

3.4 Paint and Paint Color

Exterior paint color selection can be one of the most exciting as well as one of the most difficult decisions for a property owner to make. However, when an exterior painting project is properly planned and prepared, a well-chosen selection of exterior paint colors can enhance a building by drawing attention to architectural details and disguising design flaws. Although enhancement is a major benefit of paint, the primary purpose for painting wood is to prevent moisture from penetrating the wood and causing deterioration of a building's siding, decorative features, and ultimately, its underlying structural members.

Points to Consider before Painting:

When selecting an exterior color-scheme, choose at least three colors—one for the siding, one for the trim, and one for the front door, window sashes, and other accent features. Window sashes of historic buildings are generally painted black or the darkest shade of the color scheme. Four to six colors may be appropriate for highly ornate buildings. Brick or stone buildings should have at least two colors–one color for the trim and one color for window sashes. When considering exterior paint colors, make sure your color scheme compliments the building's roof and any surfaces that will not be painted, such as brick. Earth tone colors were commonly used in the Victorian Period from 1865 to 1900. After 1900, in the Classic Revival Period, lighter colors including white were used. Several paint manufacturers, such as Pittsburgh Paints, Sherwin Williams, and Valspar have historic color charts that property owners can refer to when selecting an exterior color scheme. A building's original colors can be determined inexpensively by using an X-acto® or other craft knife and removing a small area of paint at an angle to expose the bottom most layers of paint. Property owners can also contact the Fort Smith Planning Department at (479) 784-2219 to view reference materials on historic color schemes.

Before applying exterior paint, property owners should make sure that the surfaces to be painted have been properly prepared. Most paint failures are caused by moisture problems or surface preparation and application mistakes. The following paint problems are commonly associated with historic buildings:

Peeling, blistering, and flaking are caused frequently by moisture from internal or exterior sources such as poorly ventilated bathrooms, kitchens, and poorly caulked openings. After correcting the source of the moisture problem, scrape away the loose paint with the gentlest means possible before repainting.

A crackling or alligator appearance is another common paint problem in historic buildings. This condition occurs when paint builds up to1/16" or approximately 16 to 30 layers of paint. To correct this problem, remove the layers of paint to the first sound layer using the gentlest means possible before repainting. Thick paint invariably fails at the weakest points of adhesion and crackling and peeling will be the result. Therefore, if there are no signs of paint failure and painting is only for cosmetic purposes, it is recommended that repainting be limited to trim or accent features of the house to avoid adding another layer of paint.

Mildew on exterior surfaces is still yet another problem that is commonly found on historic buildings and must be eliminated before repainting. Test for mildew by swabbing a small area with regular household bleach. If the spots disappear, they are mildew. To remove the mildew, prepare a solution of one part bleach and three parts water. Wearing protective gloves, scrub the mildew infected areas with the solution, let the solution set on the surface for several minutes, then rinse with clean water.

Lead-based paint, a toxic material, is on most homes built before 1978. Therefore, almost every historic house contains some lead-based paint. Property owners should use extreme care when removing paint from historic buildings. The preferred method for removing flaking paint is the wet sanding of surfaces to control lead dust. Do not use a belt sander, propane torch, heat gun, dry scrapes, or dry sandpaper. These actions create large amounts of lead dust and fumes. If lead-based paint is to be removed from an extensive area, it is recommended that the property owner contact a qualified contractor that is trained and certified in lead-base paint abatement procedures.

Once all wooden surfaces have been cleaned, gently scraped and sanded and joints and openings have been properly caulked, exposed surfaces should be coated with a high-quality paint. The type of paint finish depends on what was previously applied to the exterior. If the exterior wood has been painted with oil paint many times in the past, it is recommended that an oil paint be applied. Likewise, if latex paint has been applied to the surface many times in the past, a latex paint should be used. If, however, a latex topcoat is going to be applied over several layers of old oil paint, an oil primer should be applied first. The oil primer creates a flat, porous surface to which the latex can adhere. After the primer has thoroughly dried, a latex paint may be applied.

3.4 Paint and Paint Color: Guidelines

Recommended

.1 Prevent moisture penetration and protect wood surfaces from deterioration with a regular maintenance program of painting and caulking where necessary.

.2 Select an exterior paint-color scheme that is appropriate for historic buildings and enhances architectural details.

.3 Correct peeling, blistering, and flaking paint by correcting moisture problems.

.4 Maintain painted surfaces with regular cleaning and avoid adding unnecessary layers of paint to prevent a crackling or alligator appearance.

.5 Use the gentlest means possible, such as hand sanding or light scraping, to remove deteriorated paint down to the first layer of sound paint. Use mechanical, thermal, or chemical methods to remove paint only when the gentlest methods are ineffective.

.6 Take precautions against lead dust and dispose of lead paint residue properly.

Not Recommended

.7 Painting brick, stone, concrete blocks, copper, bronze and other masonry or metal surfaces that were historically unpainted.

.8 Paint colors that are garish and inappropriate for historic buildings.

.9 Stripping paint from wood surfaces that were historically painted and applying stains or varnishes to create a natural wood appearance.

.10 Using rotary drill attachments, water blasting above 600 psi, and sandblasting to remove deteriorated paint.

NOTES

3.5 Roofs

A. From the Secretary of the Interior's Standards

The roof - with its shape; features such as cresting, dormers, cupolas, and chimneys; and the size, color, and patterning of the roofing material - is an important design element of many historic buildings. In addition, a weather-tight roof is essential to the long-term preservation of the entire structure. Historic roofing reflects availability of materials, levels of construction technology, weather, and cost. Throughout the country in all periods of history, **wood shingles** have been used - their size, shape and detailing differing according to regional craft practices.

European settlers used **clay tile** for roofing at least as early as the mid-17th century. In some cities, such as New York and Boston, clay tiles were popularly used as a precaution against fire. The Spanish influence in the use of clay tiles is found in the southern, southwestern and western states. In the mid-19th century, tile roofs were often replaced by **sheet metal**, which is lighter and easier to maintain.

Evidence of the use of **slate** for roofing dates from the mid-17th century. Slate has remained popular for its durability, fireproof qualities, and its decorative applications. The use of metals for roofing and roof features dates from the 18th century, and includes the use of **sheet metal, corrugated metal, galvanized metal, tinplate, copper, lead** and **zinc.**

New roofing materials developed in the early 20th century include built-up roll roofing, and concrete, asbestos, and asphalt shingles.

B. Essential Points of Interest for Roofs:

If you are confronted with leaks or deterioration, follow these steps:

(1) Locate the problem(s) - damaged surface materials (shingles, etc.) maybe the cause. For example, wood has a limited life expectancy as well as asphalt shingles.

(2) Check the substrate such as roof deck or roofing felts.

(3) Check the gutters and downspouts, which, if plugged and/or frozen, can back up water on and into the roofing system.

(4) Decide on repairs or replacement of parts or systems.

(5) Conduct research to determine if the present roof is the original or if it was changed. It may be that an original roof system should be considered.

(6) Get advice from a professional preservationist on deciding what should be done. This important work takes experience. Building codes may not allow some historic materials for replacement, in which case a historic alternative must be selected.

(7) Stabilize the roof system and prevent further damage to occur.

(8) Properly maintain roofs and all components such as gutters and downspouts.

3.5 Roofs: Guidelines

Recommended

.1 Identifying, retaining and preserving roofs - and their functional and decorative features - that are important in defining the overall historic character of the building. This includes the roof's shape, such as hipped, gambrel, and mansard; decorative features such as cupolas, cresting chimneys, and weathervanes; and roofing material such as slate, wood, clay tile and metal, as its size, color, and patterning.

.2 Protecting and maintaining a roof by cleaning the gutters and downspouts and replacing deteriorated flashing. Roof sheathing should also be checked for proper venting to prevent moisture condensation and water penetration, and to ensure that materials are free from insect infestation.

.3 If new gutters and downspouts are needed, in lieu of repairing install them so that no architectural features are lost or damaged. Select new gutters and downspouts that match trim color, unless they are copper. Retain the shape of historical gutters and downspouts if replacing them.

.4 Providing adequate anchorage for roofing material to guard against wind damage and moisture penetration.

.5 Protecting a leaky roof until it can be properly repaired.

.6 Repairing a roof by reinforcing the historic materials which comprise roof features. Repairs will also generally include the limited replacement in kind or with compatible substitute material of those extensively deteriorated or missing parts of features when there are surviving prototypes such as cupola louvers, dentils, dormer roofing; or slates, tiles, or wood shingles on a main roof.

.7 Replacing in kind an entire feature of the roof that is too deteriorated to repair - if the overall form and detailing are still evident - using the physical evidence as a model to reproduce the feature. Examples can include a large section of roofing, or a dormer or chimney. If using the same kind of material is not technically or economically feasible, then a compatible substitute material may be considered.

.8 Designing and constructing a new feature when the historic feature is completely missing, such as chimney or cupola. It may be an accurate restoration using historical, pictorial, and physical documentation; or be a new design that is compatible with the size, scale, material, and color of the historic building.

.9 Installing mechanical and service equipment on the roof such as air conditioning, transformers, or solar collectors when required for the new use so that they are inconspicuous from the public right-of-way and do not damage or obscure character-defining features.

.10 Designing additions to roofs such as residential, office, or storage spaces; elevator housing; decks and terraces; or dormers or skylights when required by the new use so that they are inconspicuous from the public right-of-way and do not damage or obscure character-defining features.

.11 Locate satellite dishes on a wall or roof surface remote from view and do not damage or obscure character-defining features.

.12 Locate skylights, roof vents, plumbing vents, etc., where they are not visible from the street and do not damage or obscure character-defining features.

Not Recommended

.13 Creating a false historical appearance because the replaced feature is based on insufficient historical, pictorial, and physical documentation.

.14 Introducing a new roof feature that is not compatible in size, scale, material and color.

.15 Installing mechanical or service equipment so that it damages or obscures character-defining features or is conspicuous from the public right-of-way.

.16 Radically changing a character-defining roof shape or damaging or destroying character-defining roofing material as a result of incompatible design or improper installation techniques.

.17 Radically changing, damaging, or destroying roofs which are important in defining the overall historic character of the building so that, as a result, the character is diminished.

.18 Removing a major portion of the roof or roofing material that is repairable, then reconstructing it with new material in order to create a uniform, or "improved" appearance.

.19 Changing the configuration of a roof by adding new features such as dormer windows, vents, or skylights so that the historic character is diminished.

.20 Stripping the roof of sound historic material such as slate, clay tile, wood, and architectural metal.

.21 Applying paint or other coatings to roofing material which has been historically uncoated.

.22 Failing to clean and maintain gutters and downspouts properly so that water and debris collect and cause damage to roof fasteners, sheathing, and the underlying structure.

.23 Installing new exposed gutters that are not of the historic shape or new downspouts that are not round.

.24 Allowing roof fasteners, such as nails and clips to corrode so that roofing material is subject to accelerated deterioration.

.25 Permitting a leaking roof to remain unprotected so that accelerated deterioration of historic building materials - masonry, wood, plaster, paint and structural members - occurs.

.26 Replacing an entire roof feature such as a cupola or dormer when repair of the historic materials and limited replacement of deteriorated or missing parts are appropriate.

.27 Failing to reuse intact slate or tile when only the roofing substrate needs replacement.

.28 Using a substitute material for the replacement part that does not convey the visual appearance of the surviving parts of the roof or that is physically or chemically incompatible.

.29 Removing a feature of the roof that is unrepairable, such as a chimney or dormer, and not replacing it; or replacing it with a new feature that does not convey the same visual appearance.

3.6 Exterior Walls:

Exterior walls are one of the most effective elements in determining a historic building's "architectural style," "character," and date of construction. Every element of the walls or facades plays a role in its style. In maintaining and rehabilitating walls, the Secretary of the Interior's Standards for rehabilitation are important to follow. Things which determine "style" include: wall surfaces, openings for windows and doors, projections such as bay windows or chimneys, ornamentation and materials.

Many problems or potential problem areas can be avoided by cleaning the walls of dirt and grime. Keep vines from growing on the walls, since they can grow behind siding, into masonry cracks, and up into soffit boards or vents. Gutters often get full of leaves with so many large trees in the district. Clogged gutters and downspouts put strain on the gutter supports; also, cause dirt and debris from the roof to run over onto the walls, windows and doors below. Thus, the purpose of the gutter is not only defeated, but has caused much harm. If water freezes in the gutters due to clogged downspouts, the movement caused by freezing and thawing can loosen supports and allow water to dam up onto a roof surface and enter the roof, soffit and wall when it thaws.

If there is an uncovered hard surface such as a wood deck, porch or patio next to a wall, the rain will splash water onto the wall surface and may splash into the foundation vents or onto glass in doors, etc. Tree branches can cause damage to a wall in numerous ways. Roots can grow under foundations or into a foundation wall causing upheaval of the wall. Trees send out roots for water. Some- times the roots are close enough to the foundation that in dry periods it will suck the moisture from a clay type soil and cause the soil to shrink, then the foundation settles causing cracks in the walls above. Tree branches can scratch walls.

Moss or fungus (mold) may grow on a wall, which is usually caused by the wood or masonry not drying. This may be especially true on the north exposed walls that do not get sunlight to dry out and burn off the fungus or moss.

It is essential that historic exterior walls remain and be cleaned and maintained periodically. To develop a "maintenance schedule," follow the guidelines for the various materials which are included in these guidelines.

Preserve original materials. Historic building materials and the craftsmanship they exhibit, add textural qualities, as well as visual continuity and character to the streetscape and District. When replacement of facade wall materials is necessary, the new materials should match the original in scale, color, texture and finish. Do not cover or obscure original facade materials. Covering of an original facade not only conceals interesting details, but, also, interrupts the visual continuity along the street. If the original material has been covered, uncover it, if feasible. Do not use harsh cleaning methods that could damage the finish of historic materials. Sandblasting, for example, is prohibited. Saving deteriorated parts that must be replaced may later assist in matching reconstructed features. Wooden sash windows, cornices and doors can often be restored or replicated.

Foundation walls: Foundation walls should be preserved in their original design and with original materials and detailing. Infilling between masonry piers should be done as traditional for the type and style of the house, generally with wood lattice framed panels; with colors appropriate for the period of the house. Foundation walls should not be exposed concrete unless it was originally exposed.

3.6 Exterior Walls: Guidelines

Recommended

.1 Materials original to the building, such as wood siding or masonry, should be repaired rather than replaced.

.2 Original walls should be preserved.

.3 If an addition is necessary, cover and protect from damage rather than remove existing elements or materials so that if, in the future, the addition is removed , the original wall material will be there undamaged.

.4 Clean, maintain and repair wall surfaces and decorative elements with a routine maintenance program.

.5 If replacement is determined to be necessary due to severe deterioration, replace it with an element of the same design, size, texture, material and color as the original.

.6 Maintain paint and coatings to prevent deterioration.

Not Recommended

.7 Removing original doors, windows, siding, masonry or other elements which are historic.

.8 Replacing an original element with one that does not replicate the originals in design, size, texture, material and color.

.9 Using artificial siding materials and trim to cover or replace original wood. See Section 3.0 for policy statement concerning artificial siding materials.

.10 Attaching materials of an addition directly to the original wall materials causing damage to it.

.11 Closing openings such as windows or doors, thus changing the character of the facade.

.12 Making new openings such as doors or windows, thus changing the character of the facade.

3.7 Windows, Shutters, Awnings and Doors

A. **Windows**

(From the Secretary of the Interior's Standards)

Technology and prevailing architectural styles have shaped the history of windows in the United States. Starting in the 17th century with wooden casement windows with tiny glass panes seated in lead came. From the transitional single-hung sash in the early 1700s to the true double-hung sash later in the century, these early wooden windows were characterized by small panes, wide muntins, and decorative trim. As the sash thickness increased, muntins took on a thinner appearance as they narrowed in width but increased in thickness.

Changes in technology led to larger panes of glass so that by the mid-19thcentury, two-over-two lights were common; the manufacture of plate glass in the United States allowed for use of large sheets of glass in commercial and office buildings by the late 19th century. With mass-produced windows, mail order distribution, and changing architectural styles, it was possible to obtain a wide range of window designs and light patterns in sash. Early 20th Century designs frequently utilized smaller lights in the upper sash and also casement windows. The desire for fireproof building construction in dense urban areas contributed to the growth of a thriving steel window industry along with a market for hollow metal and metal clad wooden windows.

As one of the few parts of a building serving as both an interior and exterior feature, windows are nearly always an important part of a historic building.

B. **Shutters**

Shutters have been used historically as a device to close an opening and provide protection from intruders and weather. It is not proper to install shutters on window openings that historically did not have them; to do this would be false architecture. If used, they should be reinstalled properly.

Awnings

Like shutters, awnings have played an important role as an element of a building facade. Awnings have been used on commercial storefronts for many years; most generally, of fabric (canvas) type material. They were used to protect pedestrians from inclement weather and sun and to shade the displays in their store windows from the intense sun. Awnings were also used to add color and sign area to advertise the store name or logo. When used on a storefront or other opening, the awning should fit the opening in size, shape and scale.

C. **Doors**

Much like windows, exterior doors of buildings have evolved through the years and are an important part of the building's history. The size, location and material of a door and its related components, such as a transom, sidelights, or both, are character defining elements and, as such, should be retained and preserved during rehabilitation work. If an exterior door were removed to make an entrance to an addition, it should be saved for possible future use if the addition were ever removed.

3.7 Windows, Shutters, Awnings & Doors: Guidelines

Recommended

.1 **Identifying, retaining, and preserving** windows and doors - and functional and decorative features - that are important in defining the overall historic character of the building. Such features can include frames, sash, muntins, glazing, sills, heads, hood-molds, paneled or decorated jambs and moldings, and interior and exterior shutters and blinds.

.2 Conducting an in-depth survey of the condition of existing windows and doors early in rehabilitation planning so that repair and upgrading methods and possible replacement options can be fully explored.

.3 **Protecting and maintaining** the wood and architectural metals which comprise the window and door frame, sash, muntins, and surrounds through appropriate surface treatments such as cleaning, rust removal, limited paint removal, and re-application of protective coating systems.

.4 Making windows and doors weather tight by re-caulking and replacing or installing weatherstripping. These actions also improve thermal efficiency.

.5 Evaluating the overall condition of materials to determine whether more than protection and maintenance are required, i.e., if repairs to windows and window features will be required.

.6 **Repairing** window and door frames and sash by patching, splicing, consolidating or otherwise reinforcing. Such repair may also include replacement in kind - or with compatible substitute material - of those parts that are either extensively deteriorated or are missing when there are surviving prototypes such as architraves, hood-molds, sash, sills, and interior or exterior shutters and blinds.

.7 **Replacing** in kind an entire window or door that is too deteriorated to repair using the same sash and pane configuration of the window and other design details. If using the same kind of material is not technically or economic-ally feasible when replacing windows deteriorated beyond repair, then a compatible substitute material may be considered. Replacement windows should accurately replicate the appearance of the existing historic windows, including the profiles, muntins, sash, frames and moldings.

.8 Maintain historically significant building openings. The size and shape of original doors and windows are important characteristics that contribute to the integrity of historic buildings. Avoid altering the size or shape of these features.

.9 Retain the original shape of the transom glass. If the original glass is missing, installing new glass is preferred. However, if the transom must be blocked out, use it as a sign panel or a decorative band, but retain the original proportions.

.10 Preserve historic windows. The proportions of windows contribute to the character of each building. Do not block windows or alter their size. Consider re-opening windows that are currently closed. Replace missing glass.

.11 **Storm windows** - consider mounting on the inside of the window opening. Match the materials of the existing window. The design of the storm window should match the overall design of the historic windows. Line up major divisions of the storm window with those of the historic window.

.12 If historic storm windows and/or screens exist, they should be retained.

.13 The color of storm windows should match the color of existing windows unless documentation shows otherwise.

.14 Add shutters only if they were historically on the building. They should be of wood and properly sized to fit the window opening if closed.

.15 If security bars on windows or doors are required, consider internal mounting so as not to alter the character-defining original window or door openings.

.16 If awnings are used, they should be of historic colors to compliment the building facade, be of the same shape of the opening, i.e., rectangular with rectangular topped openings and arched shape with arched openings. Locate within each bay or between columns.

.17 I the building code and safety laws will allow, consider using historic looking glass if originally in windows.

Not Recommended

.18 Removing or radically changing windows or doors which are important in defining the historic character of the building so that, as a result, the character is diminished.

.19 Changing the number, location, size or glazing pattern of windows, through cutting new openings, blocking-in windows, and installing replacement sash that do not fit the historic window opening.

.20 Changing the historic appearance of windows or doors through the use of inappropriate designs, materials, finishes, or colors which noticeably change the sash, depth of reveal, and muntin configuration; the reflectivity and color of the glazing; or the appearance of the frame.

.21 Obscuring historic window or door trim with metal or other material.

.22 Stripping windows or doors of historic material such as wood, cast iron, and bronze.

.23 Replacing windows or doors solely because of peeling paint, broken glass, stuck sash, and high air infiltration. These conditions, in themselves, are no indication that windows are beyond repair.

.24 Failing to provide adequate protection of materials on a cyclical basis so that deterioration of the window or door results.

.25 Retrofitting or replacing windows or doors rather than maintaining the sash, frame, and glazing.

.26 Failing to undertake adequate measures to assure the protection of historic windows or doors.

.27 Replacing an entire window or door when repair of materials and limited replacement of deteriorated or missing parts are appropriate.

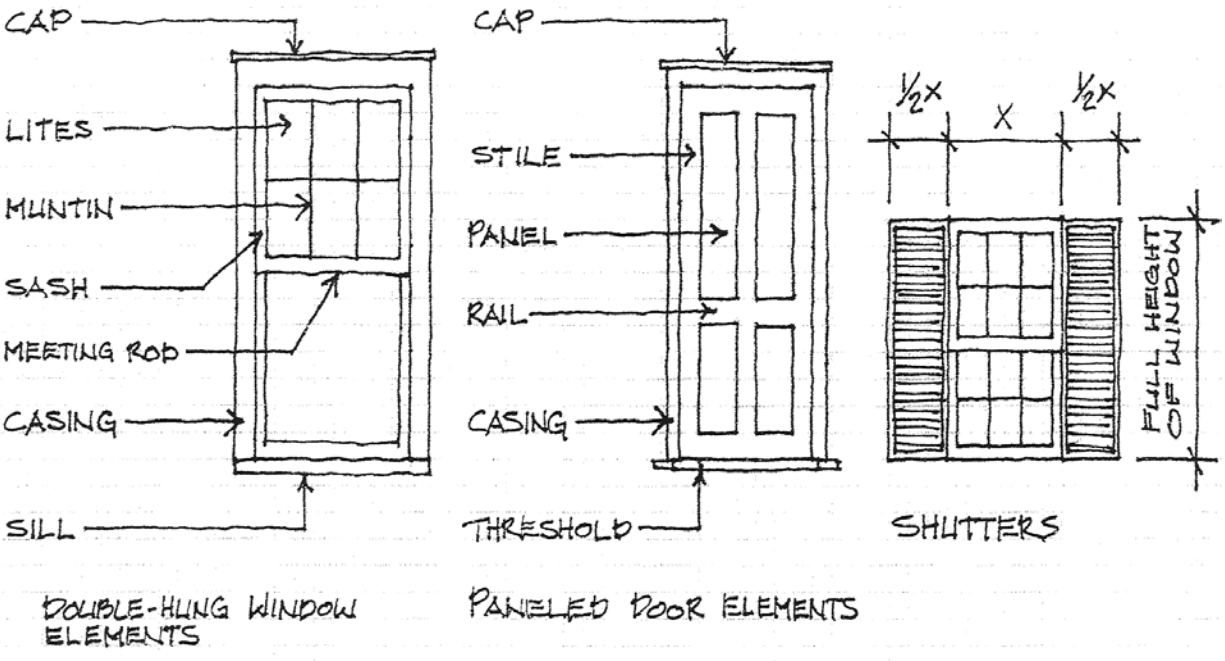
.28 Failing to reuse serviceable window or door hardware such as brass sash lifts and sash locks, or hinges and locksets.

.29 Using substitute material for the replacement part that does not convey the visual appearance of the surviving parts of the window or that is physically or chemically incompatible.

.30 Removing a character-defining window or door that is unrepairable and blocking it in; or replacing it with a new window or door that does not convey the same visual appearance.

.31 Metal storm or screen doors are not recommended.

.32 See Section 3.0 for policy statement concerning vinyl windows.



3.8 Entrances, Porches and Balconies

A. Overview of the History of Entrances, Porches and Balconies (From the Secretary of Interior's Standards)

Entrances and porches are quite often the focus of historic buildings, particularly on primary elevations. Together with their functional and decorative features such as doors, steps, balustrades, pilasters, and entablatures, they can be extremely important in defining the overall character of a building. In many cases, porches were energy-saving devices, shading southern and western elevations. Usually entrances and porches were integral components of a historic building's design; for example, porches on Greek Revival houses, with Doric or Ionic columns and pediments, echoed the architectural elements and features of the larger building. Central one-bay porches or arcaded porches are evident in Italianate style buildings of the 1860's. Doors of Renaissance Revival style buildings frequently supported entablatures or pediments. Porches were particularly prominent features of Eastlake and Stick Style houses in which porch posts, railings, and balusters were characterized by a massive and robust quality, with members turned on a lathe. Porches of bungalows of the early 20th century were characterized by tapered porch posts, exposed post and beams, and low pitched roofs with wide overhangs. Art Deco commercial buildings were entered through stylized glass and stainless steel doors.

B. More Discussion

Generally porches and balconies, being the most open part of a building get the harshest treatment from wind. rain, snow, cold and sun. Each season brings another type of condition to wear on the surfaces above and below the porch flooring; therefore, more time and money is usually required for porch and balcony maintenance than on any other single area of a building.

Second floor porches, or decks, not only have problems at that level but any weather related problems will multiply as the water transfers to the lower area if it is an exterior area, but more especially if it is an interior part of the building. The ceiling and framing can be rotted and the ceiling and wall materials stained as a minimum.

Unfortunately as funds become less available for maintenance and repairs, the balcony, porch, stairs and railing repairs are the last priority since they are not essential living spaces.

It is too easy to close a porch or balcony off and wait until some extra money comes along. As neglect sets in, more decay and damage occurs over time and the repair becomes more costly, etc., etc., if it is ever done.

In early years of residential construction, before air conditioning, the porch and balcony were places to enjoy a cool summer breeze, eat, sleep and enjoy a view of the neighborhood happenings, or just enjoy ones own estate.

The porch being the main entry to the building presents a favorable or unfavorable impression on those who enter. This, then should be a factor to encourage good maintenance and upkeep for porches and balconies.

The openness and reasonable access to the porch and balcony framing, deck, railings, soffit and steps should allow for easier maintenance, repairs, or replacement of components than other parts of the building.

The dictionary defines "porch" as a covered structure or space at the entrance to a building; a stoop. "Veranda" is also used in the U.S. The word "porch" was derived from the Stoic School of Philosophy in ancient Athens, Greece, named from the Stoa Poecile, or Painted Porch. The Greek word "Stoikos" is the Colonnade at Athens where Zeno taught.

As one's status increased and larger residences were built around the turn of the century, the larger and more elaborate porches and balconies meant success and affluence.

It seems as though the advent of the automobile made sitting on porches or balconies less desirable due to the sound of passing autos and the fumes which engulfed them. As time went on, newer residences were designed with short entryways and foyers to buffer sounds and weather.

Side and rear porches were replaced with patios and decks with screening for privacy.

If significant damage has occurred to a porch or balcony or if an original was removed, historical research should be done before attempting to rebuild a likeness to the original. Research the building code for safety requirements for railing heights and spacing of balusters.

Follow the same procedure as for replacing or repairing historic elements or duplicating a likeness thereof on other character defining components of the building.

3.8 Entrances, Porches & Balconies: Guidelines

Recommended

.1 **Identifying, retaining, and preserving** entrances, porches and balconies - and their functional and decorative features - that are important in defining the overall historic character of the building such as doors, fanlights, sidelights, pilaster, entablatures, columns, balustrades, and stairs.

.2 **Protecting and maintaining** the masonry, wood, and architectural metals that comprise entrances, porches or balconies through appropriate surface treatments such as cleaning, rust removal, limited paint removal, and re-application of protective coating systems.

.3 Evaluating the overall condition of materials to determine whether more than protection and maintenance are required; that is, repairs to entrance and porch features will be necessary.

.4 **Repairing** entrances, porches or balconies by reinforcing the historic materials. Repair will also generally include the limited replacement in kind - or with compatible substitute material - of those extensively deteriorated or missing parts of repeated features where there are surviving prototypes such as balustrades, cornices, entablatures, columns, sidelights, and stairs.

.5 **Replacing** in kind an entire entrance, porch or balcony that is too deteriorated to repair - if the form and detailing are still evident - using the physical evidence as a model to reproduce the feature. If using the same kind of material is not technically or economically feasible, then a compatible substitute material may be considered.

Not Recommended

.6 Removing or radically changing entrances, porches or balconies which are important in defining the overall historic character of the building so that, as a result, the character is diminished.

.7 Stripping entrances, porches or balconies of historic material such as wood, cast iron, terra cotta tile, and brick.

.8 Removing an entrance, porch or balcony because the building has been reoriented to accommodate a new use.

.9 Cutting new entrances on a primary elevation.

.10 Altering utilitarian or service entrances so they appear to be formal entrances by adding paneled doors, fanlights, and sidelights.

.11 Failing to provide adequate protection to materials on a cyclical basis so that deterioration of entrances, porches or balconies results.

.12 Failing to undertake adequate measures to assure the protection of historic entrances, porches or balconies.

.13 Replacing an entire entrance, porch or balcony when the repair of materials and limited replacement of parts are appropriate.

.14 Using a substitute material for the replacement parts that does not convey the visual appearance of the surviving parts of the entrance, porch or balcony or that is physically or chemically incompatible.

.15 Removing an entrance, porch or balcony that is unrepairable and not replacing it, or replacing it with a new entrance porch or balcony that does not convey the same visual appearance.

3.9 Storefronts

The Belle Grove Historic District has few buildings with storefronts. Although a corner commercial building would have two facades which would be seen, the front facade was the most important. The rear was usually oriented toward an alley and was used for delivery or pick up. The storefront occurs only on the ground level and the upper facade generally had a repetitive pattern of window openings.

Most late 19th and early 20th Century storefronts had display windows, awnings and some transoms. Maintaining the historic elements and character of the storefront is important for preserving the integrity of the district.

3.9 Storefronts: Guidelines

Recommended

.1 Identifying, retaining, and preserving storefronts - and their functional and decorative features - that are important in defining the overall historic character of the building such as display windows, signs, doors, transoms, kick plates, corner posts, and entablatures. The removal of inappropriate, non-historic cladding, false mansard roofs, and other later alterations can help reveal the historic character of a storefront.

Not Recommended

.2 Removing or radically changing storefronts - and their features - which are important in defining the overall historic character of the building so that, as a result, the character is diminished.

.3 Changing the storefront so that it appears residential rather than commercial in character.

.4 Removing historic material from the storefront to create a recessed arcade.

.5 Introducing coach lanterns, mansard designs, wood shakes, non-operable shutters, and small -paned windows if they cannot be documented historically.

.6 Changing the location of a storefront's main entrance.

.7 Replacing an entire storefront when repair of materials and limited replacement of its parts are appropriate.

.8 Using substitute material for the replacement parts that does not convey the same visual appearance as the surviving parts of the storefront or that is physically or chemically incompatible.

.9 Removing a storefront that is unrepairable and not replacing it; or replacing it with a new storefront that does not convey the same visual appearance.

.10 Using inappropriately sealed signs and logos or other types of signs that obscure, damage, or destroy remaining character defining features of the historic building.

3.10 Utilities Retrofit:

A. Air Conditioning

If replacement of HVAC equipment is necessary, if adding air conditioning to the historic building or if designing new construction, consider the use of a geo-thermal system. Not only is geothermal an energy saver, but it also allows for removing existing ground mounted condensing units which are not historic. Thus, there will be no equipment imposed on the building facade.

If new air conditioning condensing units are to be used, it is necessary to screen them from view from the street. To screen from the street will require at least two (2) screens set at 90° to each other so that passers-by will not see the units on the side of the building or from the front.

HVAC unit(s) should be placed in a rear area to diminish view and the operational noise from the unit. Also, units that are placed between two buildings, or other type structures, can provide a source of heat and moisture that may encourage the growth of algae and mildew fungi.

In order for condensing units to operate properly, an open area around the unit and sometimes an open screen is required. This open space allows the fan to not be overworked. Thick bushes or shrubs placed too close to the unit can also cause stress on the fan unit. A lattice wood screen can be a good solution for this.

Before beginning this type project, refer to NPS Preservation Brief #24: "Heating, Ventilation and Cooling Historic Buildings: Problems and Recommended Approaches."

B. **Electrical Equipment**

If a new electrical main panel or phone panel is required to be outside of the building, place it on the wall to the rear where it will be least noticeable. This is normally the least expensive approach in the district, since the utility lines are in the alleys. Consider underground electrical, phone and tv/cable service to the building in order to prevent visual clutter.

The installation of surface lines, i.e., telephone, tv/cable, satellite, data and electrical lines on the exterior walls is discouraged as these can also damage the historic fabric of a structure and visually detract from the structure. Electric service lines should be placed under the structure, in the crawl space or in the attic.

3.10 Utilities Retrofit: Guidelines

Recommended

.1 Minimize the visual impact of mechanical and electrical equipment from view.

.2 Utilize screening such as lattice panels and planting to screen.

.3 Screen utility connections and boxes such as telephone, gas meters, and tv/cable, etc

.4 Locate stand pipes and other service equipment so that it will not impact the historic facade materials.

Not Recommended

.5 Locating window or through-the-wall air conditioning units on the building's front facade.

.6 Cutting channels into or removing historic facade materials to locate utility lines.

.7 Locating utility lines on the front facade.

.8 See Section 3.5.

3.11 Accessibility Considerations

Prior to beginning rehabilitation or new construction projects, it will be necessary to acquire a building permit. The permitting department will review plans and specifications for building code compliance.

During this review, the department does not review for ADA compliance. However, they do review accessibility criteria provided by (ANSI-A117.1) American National Standards Institute, which has many similar criteria as ADA-Americans with Disability Act.

Building owners should make themselves knowledgeable about these two important requirements before undertaking any rehabilitation or new construction project.

For advice on ADA matters, there is a regional office that offers assistance:

The Southwest DBTAC
ADA Hotline:
800-949-4232

For advice on ANSI, check with the Planning Department for the City of Fort Smith.

3.11 Accessibility Considerations: Guidelines

Recommended

.1 Identifying the historic building's character-defining spaces, features, and finishes so that accessibility code-required work will not result in their damage or loss.

.2 Complying with barrier-free access requirements, in such a manner that character-defining spaces, features, and finishes are preserved.

.3 Working with local disability groups, access specialists, and historic preservation specialists to determine the most appropriate solution to access problems.

.4 Providing barrier-free access that promotes independence for the disabled person to the highest degree practicable, while preserving significant historic features.

.5 Designing new or additional means of access that are compatible with the historic building and its setting.

Not Recommended

.6 Undertaking code-required alterations before identifying those spaces, features, or finishes which are character-defining and must therefore be preserved.

.7 Altering, damaging, or destroying character-defining features in attempting to comply with accessibility requirements.

.8 Making changes to buildings without first seeking expert advice from access specialists and historic preservationists, to determine solutions.

.9 Making access modifications that do not provide a reasonable balance between independent, safe access and preservation of historic features.

.10 Designing new or additional means of access without considering the impact on the historic building and its setting.

3.12 Health and Safety Considerations:

There are building code and life safety code requirements that must be adhered to as a part of any rehabilitation, new usage, new construction or additions. These requirements can affect the existing building function, as well as its historic appearance, and must be reviewed and considered with in-depth concern for both the building and the occupants. There are usually special case provisions in the building codes for historic properties compliance.

3.12 Health and Safety Considerations: Guidelines

Recommended

.1 Identifying the historic building's character-defining spaces, features, and finishes so that code-required work will not result in their damage or loss.

.2 Complying with health and safety codes, including seismic code requirements, in such a manner that character-defining spaces, features, and finishes are preserved.

.3 Upgrading historic stairways and elevators to meet health and safety codes in a manner that assures their preservation, i.e., so that they are not damaged or obscured.

.4 Installing sensitively designed fire suppression systems, such as sprinkler systems that result in retention of historic features and finishes.

.5 Placing a code-required stairway or elevator that cannot be accommodated within the historic building in a new exterior addition. Such an addition should be on an inconspicuous elevation.

Not Recommended

.6 Undertaking code-required alterations to a building or site before identifying those spaces, features, or finishes which are character-defining and must therefore be preserved.

.7 Altering, damaging, or destroying character-defining spaces, features, and finishes while making modifications to a building or site to comply with safety codes.

.8 Using fire-retardant coatings if they damage or obscure character-defining features.

.9 Radically changing, damaging, or destroying character-defining spaces, features, or finishes when adding a new code-required stairway or elevator.

.10 Constructing a new addition to accommodate code-required stairs and elevators on character-defining elevations highly visible from the street; or where it obscures, damages, or destroys character-defining features.

3.13 Energy Retrofit

The work in this section is most often part of interior rehabilitation and, as such, the Historic District Commission would have no direct concern. However, since some of the guidelines affect the exterior and the overall concept, and since the information is considered educational and important, it is included in these guidelines.

3.13 Energy Retrofit: Guidelines

Recommended

.1 **Masonry/Wood/Architectural Metals**
Installing thermal insulation in attics and in unheated cellars and crawlspaces to increase the efficiency of the existing mechanical systems. Install insulating material on the inside of masonry walls to increase energy efficiency where there is no character-defining interior molding around the windows or other interior architectural detailing.

.2 **Windows**
Utilizing the inherent energy conserving features of a building by maintaining windows and louvered blinds in good operable condition for natural ventilation.

Improving thermal efficiency with weather-stripping, storm windows, caulking, interior shades and, if historically appropriate, blinds and awnings.

Installing interior storm windows with airtight gaskets, ventilating holes, and/or removable clips to ensure proper maintenance and to avoid condensation damage to historic windows.

Installing exterior storm windows which do not damage or obscure the windows and frames.

.3 **Entrances and Porches**

Maintaining porches and double vestibule entrances so that they can retain heat or block the sun and provide natural ventilation.

.4 Interior Features
Retaining historic interior shutters and transoms for their inherent energy conserving features.

.5 **Mechanical Systems**
Improving energy efficiency of existing mechanical systems by installing in attics and basements.

.6 **Building Site**
Retaining plant materials, trees, and landscape features which perform passive solar energy functions such as sun shading and wind breaks.

.7 **Setting (District/Neighborhood)**
Maintaining those existing landscape features which moderate the effects of the climate on the setting such as deciduous trees, evergreen wind-blocks, and lakes or ponds.

.8 **New Additions to Historic Buildings**
Placing a new addition that may be necessary to increase energy efficiency on non-character-defining elevations.

(See next page for "Not Recommended")

Not Recommended

.9 Applying thermal insulation with a high moisture content in wall cavities which may damage historic fabric.

.10 Installing wall insulation without considering its effect on interior molding or other architectural detailing.

.11 Removing historic shading devices rather than keeping them in an operable condition.

.12 Replacing historic multi-paned sash with new thermal sash utilizing false muntins.

.13 Installing interior storm windows that allow moisture to accumulate and damage the window.

.14 Installing new exterior storm windows which are inappropriate in size or color.

.15 Replacing windows or transoms with fixed thermal glazing or permitting windows and transoms to remain inoperable rather than utilizing them for their energy conserving potential.

.16 Changing the historic appearance of the building by enclosing porches.

.17 Removing historic interior features which play an energy conserving role.

.18 Replacing existing mechanical systems that could be repaired for continued use.

.19 Removing plant materials, trees, and landscape features that perform passive solar energy functions.

.20 Stripping the setting of landscape features and landforms so that effects of the wind, rain, and sun result in accelerated deterioration of the historic building.

.21 Designing a new addition which obscures, damages, or destroys character-defining features.